REMARKS

Reconsideration of this application is respectfully requested. It is believed that claims 1 to 35 are pending. As requested in the Action, an Abstract is included herewith. The abstract is substantially similar to the abstract in the corresponding PCT application.

Figure 1 has been amended to include reference numeral (6). The application as filed included Figure 1 with reference numeral (6), however the reference numeral was handwritten in the original application. Attached is a formal set of drawings which includes Figure 1 that clearly shows reference numeral (6).

The rejection of claims 1-21 as being obvious over Lang (U.S. Patent No. 5,164,956) in view of Burt et al (U.S. Patent No. 6,052,213) is traversed. Lang and Burt do not suggest reflector on the "sides" of a ridge of waveguide.

The present invention relates to a ridge waveguide (reference numeral 4 in Figures 1 and 3) that guides light between two end faces (reference numerals (6) and (8) in Figure 1). The ridge waveguide has two ends 6, 8 and two sides that are perpendicular to and between the ends. The distributed reflector recited in the claims are located on the "sides" of the ridge waveguide.

Lang does not disclose a ridge waveguide having a reflector located "on either side of the waveguide". Figure 2a of Lang at reference numeral (14) shows an end (not a side) of a ridge waveguide and reference numeral (10) points to a side (rather than an end) of the ridge waveguide. The gratings 18, 19 shown in Lang are located at the ends of the ridge waveguide, not at its sides. In particular, Lang at column 4, line 62 refers to

a "length d" of the active region. The "length d" shown in Figure 2 extends between the ends of the ridge waveguide. Figure 7 of Lang shows the light exiting the ridge waveguide at its end through the grating 19. Lang does not disclose a ridge waveguide having a distributor reflector arranged on either "side" of the ridge.

Burt describes a reflector for use as a defraction grating. Light is deliberately coupled to the crystalline photonic material in which the grating is formed. *See* Burt Abstract. Burt appears to require a special photonic material be incorporated somehow into the laser diode. In contrast to Burt, the present invention includes a reflector provided on the sides of the waveguide. The waveguide of the present invention itself is in tact between the reflectors.

To make the differences between the applied prior art and the claimed invention more clear, claim 1 has been amended to state that the waveguide is "adapted to guide light from a first end to a second end" and that the distributor reflector "elements" are arranged on the side of the ridge waveguide "between the first and second ends" of the waveguide. The amendments to claim 1 make abundantly clear that the distributed reflectors of the present invention are arranged on the sides of the waveguide. There is no suggestion in Burt or Lang to arrange distributed reflectors on the side of a waveguide. Indeed, Lang teaches away from the claimed invention by disclosing gratings on the ends of waveguides. Accordingly, Lang and Burt would not have rendered obvious the claimed invention and especially the arrangement of distributor reflectors on the sides of a waveguide.

The obviousness rejection of dependent claims 3, 7, 8, 11-13 and 15-16 is traversed for the same reasons as stated above. The applied prior art references do not disclose the elements recited in these claims. It is simply stated in the Action that "it is well known to include in such a laser device a distributed reflector at the depths and locations as claimed, and it would have been obvious to one skilled in the art to do so" does not form a prima facie case of obviousness.

All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is requested to telephone applicants' attorney. Prompt reconsideration and allowance of this application is requested.

Respectfully submitted,

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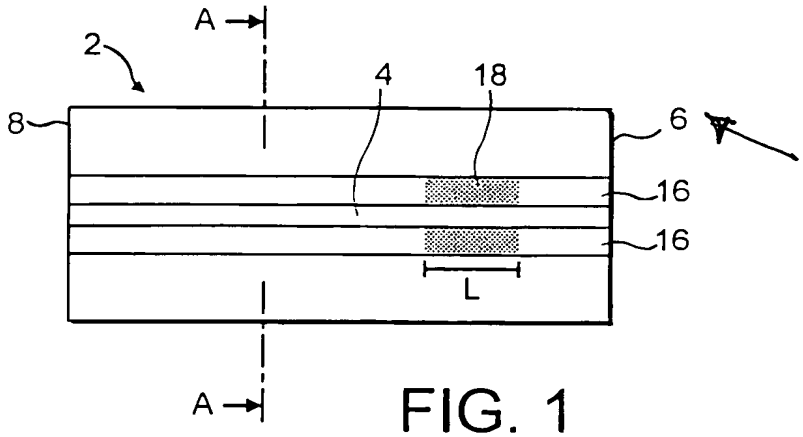

FIG. 1

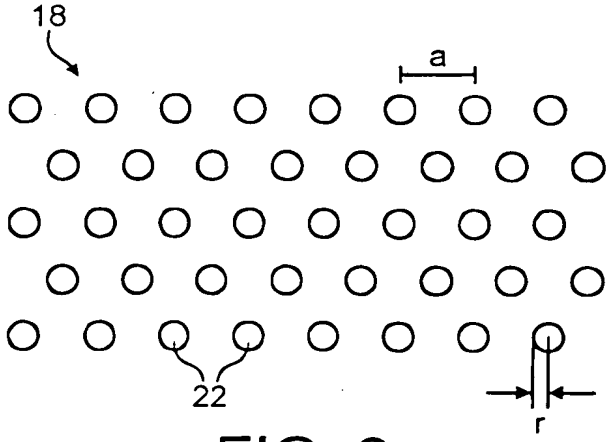

FIG. 2

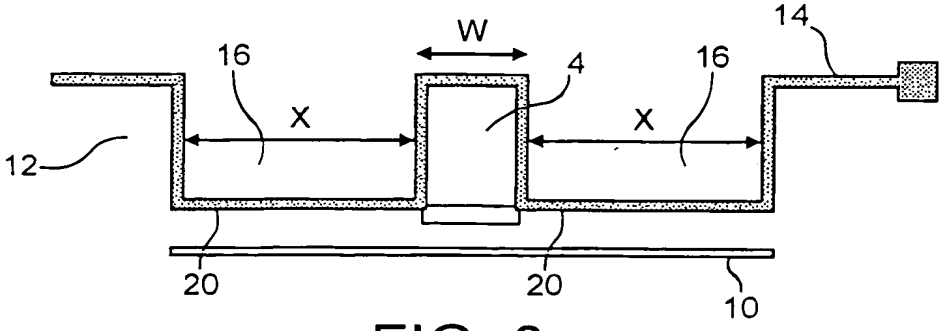

FIG. 3